

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL H. PUTRE, STEVEN K. MORRIS, and
MICHAEL P. GALLAGHER

Appeal 2008-1701
Application 10/921,250
Technology Center 3600

Decided: August 19, 2008

Before MURRIEL E. CRAWFORD, LINDA E. HORNER, and
DAVID B. WALKER, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Michael H. Putre et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM-IN-PART.

THE INVENTION

The Appellants' claimed invention is directed to a foldable and transportable tripod stand for supporting work pieces (Spec. 1:1-2).

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A work stand comprising
 - a base having top and bottom sides and
 - a support member extending downwardly from said bottom side,
 - three legs spaced apart about said support member and having upper ends pivotally attached to said base and lower ends below said support member for engaging an underlying surface to support said base above said surface,
 - a collar slidable on said support member between upper and lower positions relative to said base, and
 - links between said collar and said legs for displacing said legs between extended and retracted positions relative to said support member,
 - said collar being in said upper and lower positions when said legs are in said retracted and extended positions, respectively, and
 - a handle on said collar for displacing said collar to displace said legs between the extended and retracted positions thereof and for carrying said stand in the retracted position of said legs.

THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Dalton	US 2,668,682	Feb. 9, 1954
Miyazaki	US 4,324,477	Apr. 13, 1982
Ina	US 4,453,686	Jun. 12, 1984
Sir	US 5,025,715	Jun. 25, 1991

The following rejections are before us for review:

1. Claims 1, 4, and 5 are rejected under 35 U.S.C. § 102(b) as anticipated by Dalton.
2. Claims 2 and 3 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton and Miyazaki.
3. Claims 6-9 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton and Ina.
4. Claim 10 is rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton and Sir.
5. Claims 11 and 12 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton, Sir, and Miyazaki.
6. Claims 13 and 14 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, and Ina.
7. Claims 15-20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, Ina, and Sir.

ISSUES

The issues before us are whether the Appellants have shown that the Examiner erred in rejecting claims 1, 4, and 5 as being anticipated by Dalton and erred in rejecting claims 2, 3, and 6-20 as being unpatentable over Dalton in combination with Miyazaki and/or Ina and/or Sir. These issues turn, in part, on whether Dalton discloses a handle as claimed.

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. Dalton discloses a tripod having leg assemblies 15 hingedly secured at their upper ends to a common central body 16 and additionally supported by three struts 18. The struts 18 are each pivotally secured at an outer end to one of the leg structures and at the inner end to a central clamp member 19. Clamp member 19 is vertically slidable on a central post 20 (Dalton, col. 2, ll. 21-32; Fig. 1).
2. Dalton describes that “adjustment of the clamp member 19 upwardly or downwardly along the post 20 draws the leg assemblies 15 inwardly or projects them outwardly so as to converge or diverge the legs to change the relative spread of the three assemblies” (Dalton, col. 2, ll. 42-46).

3. Dalton further discloses “[a] clamp, having a fluted hand knob 22, is provided for the purpose of securing the clamp member 19 at any desired position along the post 20” (Dalton, col. 2, ll. 46-49).
4. Dalton depicts, in Figure 4, the position of knob 22 relative to the leg assemblies 15 when the tripod is in the folded position (Dalton, col. 2, ll. 4-7 and 10-11; Fig. 4).
5. Dalton does not explicitly describe using knob 22 for carrying the tripod when in a folded position, nor does Dalton explicitly describe using knob 22 for displacing clamp member 19 to displace leg assemblies 15 between inward and outward positions.
6. Dalton states that the knob 22 can be used to secure the clamp member 19 at “any” desired position, presumably including even when the clamp member 19 is at the topmost position on post 20, when the tripod is fully folded.
7. While it might be awkward for a user to turn knob 22 when the leg assemblies are folded due to space constraints, it does not appear to be impossible based on the depiction of the knob 22 in relation to the folded leg assemblies 15 shown in Figure 4, which shows a gap between adjacent leg assemblies 15.
8. Further, knob 22 is connected to clamp member 19 in such a fashion that if one were to grab knob 22 and move it upwardly or downwardly, it would cause clamp member 19 to move upwardly or downwardly along post 20, thereby causing the leg assemblies to move inwardly or outwardly in corresponding fashion. Thus,

Dalton's knob 22 is capable of being used to displace the clamp member 19 (collar) to displace the leg assemblies 15 between extended and retracted positions.

9. Further, while it might be awkward for a user to grasp the knob 22 when the leg assemblies are folded due to space constraints, it does not appear to be impossible, based on the gap shown between the adjacent leg assemblies, for one to be able to grasp Dalton's knob 22 and use it to carry the tripod when the leg assemblies are in their folded positions.
10. Dalton describes a threaded boss 27 which projects through an aperture 28 in the platform (Dalton, col. 3, ll. 9-10).
11. As shown in Figure 3 of Dalton, aperture 28 is formed in the central portion of the platform and does not extend to the periphery.
12. Dalton discloses a lock structure 70 mounted on the lower end of post 20 and corresponding latch bolts 78 on each of the three struts 18 (Dalton, col. 4, ll. 48-72).
13. Miyazaki discloses a tripod having a latch 73 mounted on one of the legs 12 and a corresponding pin 78 on the slidable collar 50 (Miyazaki, col. 4, ll. 3-15 and 46-64).
14. Neither Dalton nor Miyazaki discloses a latch on one of the collar or base and a keeper on the other of the collar or base.
15. Ina discloses a tripod having leg units 2 pivotally supported on shafts 3 (Ina, col. 2, ll. 12-14), and a support shaft 11 having a

regulator 12. A spring 14 biases the regulator 12 in a direction parallel to shafts 3. Thus, the regulator 12 does not apply a force to the leg units 2 in a direction of pivotal displacement of the leg units 2 (Ina, col. 2, ll. 45-64; Figs. 2 & 3).

16. Sir discloses a tripod stand for supporting food holding equipment having an L-shaped handle (Sir, Fig. 1).

PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S. Ct. at 1734 (“While the sequence of these

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questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”)

In rejecting claims under 35 U.S.C. § 103(a), the examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *see also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the appellant. *See Oetiker*, 977 F.2d at 1445; *see also Piasecki*, 745 F.2d at 1472. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *Id.*

ANALYSIS

Rejection of claims 1, 4, and 5 under 35 U.S.C. § 102(b) as anticipated by Dalton

The Appellants contend that the Examiner erred in rejecting claims 1, 4, and 5 as being anticipated by Dalton, because Dalton does not disclose a handle on a collar capable of displacing the collar to displace the legs between extended and retracted positions and capable of being used for carrying the stand when the legs are in the retracted position, as recited in claim 1 (App. Br. 4-7). In particular, the Appellants contend:

While hand knob 22 of Dalton might be used to initiate displacement of the legs from the extended toward the retracted positions thereof, it is respectfully submitted that the structure of Dalton’s leg assemblies and the structural interrelationship between the leg assemblies and

hand knob 22 would preclude using the hand knob to move the leg assemblies to or from the fully folded positions thereof shown in Figures 3 and 4 of Dalton and would preclude carrying the tripod in the folded positions of the leg assemblies. In this respect, as is clear from Figure 4, hand knob 22 is inwardly of leg assemblies 15 in a position which would not be accessible to a person's hand either for manipulating clamp 19 or for carrying the tripod by the knob.

(App. Br. 6.)

A patent applicant is free to recite features of an apparatus either structurally or functionally. *See In re Swinehart*, 58 C.C.P.A. 1027, 439 F.2d 210, 212, 169 USPQ 226, 228 (CCPA 1971) (“[T]here is nothing intrinsically wrong with [defining something by what it does rather than what it is] in drafting patent claims.”). Yet, choosing to define an element functionally, i.e., by what it does, carries with it a risk. *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997). As stated in *Swinehart*, 439 F.2d at 213:

where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

We find the Examiner's determination that Dalton's knob 22 inherently possesses the capability to function as the claimed handle is a reasonable finding (Facts 1-9), and the Appellants have failed to provide

sufficient evidence to persuade us that Dalton's knob 22 is not capable of being used to perform the recited functions.

In particular, Dalton depicts, in Figure 4, the position of knob 22 relative to the leg assemblies 15 when the tripod is in the folded position (Fact 4), and Dalton discloses that the knob 22 can be used to secure the clamp member 19 at "any" desired position, presumably including even when the clamp member 19 is at the topmost position on post 20, when the tripod is fully folded (Fact 6). While it might be awkward for a user to turn knob 22 when the leg assemblies are folded due to space constraints, it does not appear to be impossible based on the depiction of the knob 22 in relation to the folded leg assemblies 15 shown in Figure 4, which shows a gap between adjacent leg assemblies 15 (Fact 7). Further, knob 22 is connected to clamp member 19 in such a fashion that if one were to grab knob 22 and move it upwardly or downwardly, it would cause clamp member 19 to move upwardly or downwardly along post 20, thereby causing the leg assemblies to move inwardly or outwardly in corresponding fashion. Thus, we find that Dalton's knob 22 is capable of being used to displace the clamp member 19 (collar) to displace the leg assemblies 15 between extended and retracted positions (Fact 8). Further, while it might be awkward for a user to grasp the knob 22 when the leg assemblies are folded due to space constraints, it does not appear to be impossible, based on the gap shown between the adjacent leg assemblies, for one to be able to grasp Dalton's knob 22 and use it to carry the tripod when the leg assemblies are in their folded positions (Fact 9). Thus, Dalton's knob 22 is capable of providing the functions of a

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handle, as claimed. Accordingly, we sustain the rejection of claim 1 as anticipated by Dalton. The Appellants do not present any separate arguments for patentability of claim 4, which depends from claim 1. As such, we also sustain the rejection of claim 4.

Claim 5 depends from claim 1 and recites a recess in the periphery of the base between the top and bottom sides. The Appellants argue that the Examiner erred in rejecting claim 5, because Dalton's threaded boss 27 and aperture 28 are spaced inwardly from the periphery of the base (App. Br. 7). We agree. The customary meaning of "periphery" is a line that forms the boundary of an area; a perimeter. *The American Heritage Dictionary of the English Language* (4th ed. 2000). Thus, we construe periphery in claim 5 to mean the outer perimeter of base 12. This interpretation is consistent with the description provided in Appellants' Specification, which shows recesses 38 along the outer perimeter of base 12 between the top 22 and bottom 24 surfaces (Spec. 4:19-22). Dalton describes a threaded boss 27 which projects through an aperture 28 in the platform (Fact 10). As shown in Figure 3 of Dalton, aperture 28 is formed in the central portion of the platform and does not extend to the periphery (Fact 11). As such, we do not sustain the rejection of claim 5 as anticipated by Dalton.

Rejection of claims 2 and 3 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Miyazaki

Claim 2 recites "a latch on one of said collar and said base and a keeper on the other interengaging in said retracted position of said legs to

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releasably hold the legs in the retracted position.” Dalton discloses a lock structure 70 mounted on the lower end of post 20 and corresponding latch bolts 78 on each of the three struts 18 (Fact 12). Miyazaki discloses a latch 73 mounted on one of the legs 12 and a corresponding pin 78 on the slidable collar 50 (Fact 13). Thus, neither reference discloses a latch on one of the collar or base and a keeper on the other of the collar or base (Fact 14). The Examiner found that it would be a matter of mere engineering preference as to where to position the latch and keeper (Ans. 4). The Appellants argue that “it is not a matter of engineering preference to place a latch where neither of the prior art references discloses or makes such a location a matter of choice” (App. Br. 9). We agree with Appellants.

We see no reason why a person having ordinary skill in the art would have located the latch and keeper on the work stand as claimed in view of the teachings of the prior art relied upon. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”), *cited with approval in KSR*, 127 S. Ct. at 1741. As such, the Appellants have persuaded us of error in the Examiner’s rejection, and we do not sustain the rejection of claim 2, or claim 3 which depends therefrom.

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Rejection of claims 6-9 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Ina

Claim 6 depends from claim 1 and recites “a shoe adjustably mounted on said base for applying a force on one of said legs in the extended position of said legs and in the direction of pivotal displacement of the one leg.” The Appellants argue that Ina’s regulator 12 is axially displaceable with shaft 11 and that biasing spring 14 biases regulator 12 in a direction parallel to shaft 3 by which the leg unit 2 is pivotally attached, and so the regulator 12 does not apply a force to the leg unit in the direction of pivotal displacement of the leg, *viz.*, inwardly and outwardly relative to the base (App. Br. 10-11). The Examiner responds that leg 2 moves inwardly and outwardly in an arcuate motion, and the shoe 12 is specifically designed to provide a force against the leg 2 in its direction of pivotal displacement toward the shoe, as best shown in figure 6 (Ans. 8)

We agree with the Appellants’ reading of Ina. Spring 14 of Ina appears to bias regulator 12 in a direction parallel to shaft 3, and not in a direction of pivotal displacement of the leg 2 (Fact 15). As such, the Appellants have shown error in the Examiner’s rejection, and we do not sustain the rejection of claims 6-9.

Rejection of claim 10 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Sir

Claim 10 depends from claim 1 and recites that “said handle is L-shaped and includes a first leg extending outwardly of said collar and a

second leg parallel to said support member.” The Appellants argue that Sir does not cure the deficiencies in Dalton because the L-shaped rod 22 only interengages tube 50 relative to collar 14, and the legs of Sir are not interengaged with collar 14 for displacement between extended and retracted positions (App. Br. 11), and because rod 22 is not used to carry the cooking apparatus of Sir (App. Br. 12). The Appellants contend that even if you replaced Dalton’s knob with Sir’s L-shaped handle, the handle would still be within the leg assemblies and not accessible as a handle (Br. 12). We are not persuaded by the Appellants’ arguments. The Examiner relied on Sir only for the teaching of using an L-shaped handle (Fact 16) in place of Dalton’s knob, and Dalton’s knob is capable of performing all of the recited functions of the handle, as we found *supra* in our analysis of claim 1. Accordingly, we sustain the Examiner’s rejection of claim 10.

Rejection of claims 11 and 12 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Sir, and Miyazaki

Claim 11 recites “a latch pivotally mounted on said base and engaging with said first leg of said handle to releasably hold said legs in the retracted position.” The Appellants argue that the cited prior art fails to disclose a latch mounted on the base of their respective support stands (App. Br. 12). Sir does not teach a latching arrangement at all, and Dalton and Miyazaki’s latching arrangements are not on the base (Facts 12 & 13). The Examiner found that it would be a matter of mere engineering preference as to where to position the latch and keeper (Ans. 6). We disagree with the Examiner’s

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position for the same reasons as set forth *supra* in our analysis of claim 2. As such, we do not sustain the rejection of claim 11, or claim 12 that depends therefrom.

Rejection of claims 13 and 14 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, and Ina

Claim 13 recites both the latch arrangement of claim 2 and the shoe of claim 6. We do not sustain the rejection of claim 13, and claim 14 which depends therefrom, for the same reasons as set forth *supra* in our analysis of claims 2 and 6.

Rejection of claims 15-20 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, Ina, and Sir

Claim 15 depends from claim 13 and further recites that the handle is L-shaped. Sir does not cure the deficiencies of the combination of Dalton, Miyazaki, and Ina, as set forth *supra* for claim 13. As such, we do not sustain the rejection of claim 15, or dependent claims 16-20, which depend therefrom.

CONCLUSIONS

We conclude the Appellants have shown that the Examiner erred in rejecting claim 5 under 35 U.S.C. § 102(b) as anticipated by Dalton, claims 2 and 3 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Miyazaki, claims 6-9 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Ina,

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claims 11 and 12 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Sir, and Miyazaki, claims 13 and 14 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, and Ina, and claims 15-20 under 35 U.S.C. § 103(a) as unpatentable over Dalton, Miyazaki, Ina, and Sir. We conclude the Appellants failed to show the Examiner erred in rejecting claims 1 and 4 under 35 U.S.C. § 102(b) as anticipated by Dalton and claim 10 under 35 U.S.C. § 103(a) as unpatentable over Dalton and Sir.

DECISION

The decision of the Examiner to reject claims 1, 4, and 10 is affirmed. The decision of the Examiner to reject claims 2, 3, 5-9, and 11-20 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

JRG

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